

James Fleer

Director, Environmental Services
Environmental Services Department

Via Electronic and Certified Mail

August 10, 2015

Mr. Stephen Tzhone, Superfund Remedial Project Manager
Superfund AR/LA Enforcement Section (6SF-RA)
U.S. Environmental Protection Agency
1445 Ross Avenue
Dallas, Texas 75202

**Subject: Monthly Progress Report – July 2015
Arkwood, Inc. Site, Omaha, Arkansas**

Dear Mr. Tzhone:

Pursuant to Section IX (B) of the corrected Consent Decree in this matter, the following monthly progress report is being submitted for the Arkwood, Inc. Superfund Site (Site).

I. CURRENT ACTIVITIES

The following is a general description of Work (as defined in the Consent Decree) activities commenced or completed during this reporting period:

During July, we operated the main water treatment system, collected operational samples and conducted Site maintenance activities. In addition to collecting samples for laboratory analysis of pentachlorophenol, field samples were collected to measure pH, temperature and dissolved oxygen. Water samples were collected on July 26, 2015. The analytical data is attached to this report. A summary of the data is attached for reference. Samples at the New Cricket Spring mouth and weir will continue to be collected once per month until a reduction in frequency is approved by the agency. Note: the analytical laboratory reported that the holding time (seven days) for the monthly samples was exceeded by one day. The laboratory reported that the missed holding time is not expected to significantly impact the concentrations reported.

II. PROJECT DATA

Attached.

III. PROJECTED ACTIVITIES

August: MMI plans to continue ongoing operations and Site maintenance activities. In addition, MMI will work to submit the application for the 404 permit to perform the drainage modifications.

September: MMI plans to continue ongoing operations and Site maintenance activities. Address any comments related to the 404 permit application and prepare to implement the drainage modifications including identifying prospective contractor(s) to install the drainage modifications. Pending receipt of the 404 permit, MMI intends to install the drainage modifications. The work is planned for performance during a sustained period of low flow from New Cricket Spring to minimize the difficulty to maintain the treatment system in operation during the installation of the modified systems.

October: MMI plans to continue ongoing operations and Site maintenance activities. Finalize any portions of the additional September work that remain uncompleted, if any.

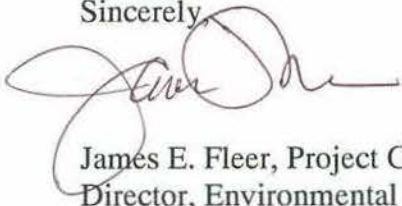
IV. PROBLEMS ENCOUNTERED OR ANTICIPATED

No problems were encountered and no problems are anticipated.

I certify that the information contained in or accompanying this submission is true, accurate, and complete to the best of my knowledge, information and belief, and that I, as project coordinator, have made reasonable inquiry into its veracity.

If you have any questions regarding this monthly progress report, please do not hesitate to contact me at (913) 238-8348.

Sincerely,



James E. Fleer, Project Coordinator
Director, Environmental Services

Enclosures

Copy:

- Mark Moix, ADEQ
- Gloria Moran, EPA Assistant Regional Counsel (6RC-S)
- Lydia Johnson, Chief, Superfund Enforcement Branch (6SF-TE)

Arkwood, Inc. Site: Ozone Injection Pilot Study

Date	Variables		Spring	PCP	
	Water Inj	O3 Inj	Flow	Mouth	Weir
12/8/05			5		
12/9/05	35		5		
12/14/05	35	1lb/10 g	21	28	
12/15/05	35	1lb/10 g	30/27	29.3	
12/20/05	36	1lb/10 g	27	7.39	<5.10
12/26/05	36	1lb/10 g	27	11.4	11.1
1/2/06	36	1lb/10 g	21	42.4	35.1
1/9/06	36	1lb/10 g	20	32.4	33
1/16/06	36	1lb/10 g	27.5	32.3	<5.00
1/23/06	36	1lb/10 g	34/32	15.9	<5.00
1/30/06	36	1lb/10 g	41	34.3	<5.00
2/6/06	36	1lb/10 g	38	<5.10	<5.00
2/13/06	36	1lb/10 g	34	23.9	<5.00
2/20/06	36	1lb/10 g	21	5.53	4.19J
2/27/06	36	1lb/10 g	26	19.9	<5.00
3/6/06	34	1-2lb/10 g	16	25.1	<5.00
3/13/06	33	1-2lb/10 g	57	107	<5.00
3/20/06	32	1-2lb/10 g	48	26.2	<5.00
3/27/06	32	1-2lb/10 g	27	4.09J	<5.00
4/3/06	34	2-3lb/10 g	24	11.3	<5.00
4/10/06	33	2-3lb/10 g	16.4	39.3	<5.00
4/17/06	34	2-3lb/10 g	22	7.94	7.82
4/24/06	35	2-3lb/10 g	16	7.0	<5.00
4/27/06	33	2-3lb/10 g	50	11.3	NA
4/29/06	33	2-3lb/10 g	193	28.2	NA
5/1/06	33	2-3lb/10 g	94	23.4	7.16
5/8/06	33	2-3lb/10 g	59	52.3	23.3
5/15/06	34	2-3lb/10 g	21.7	14.9	<5.00
5/22/06	34	2-3lb/10 g	16	<5.00	<5.00
5/30/06	34	2-3lb/10 g	16.7	5.64	<5.00
6/7/06	0	0	3	253	<5.00
6/12/06	0	0	2.19	LE	LE
6/19/06	34	0	16.7	52.1	14.3
6/26/06	34	0	16.7	74.7	<5.00
7/5/06	35	0	21.7	9.8	<5.00
7/17/06	34	0	16.7	21.9	4.01J
8/7/06	34	0	16.7	23.6	18
8/14/06	34	0	16.7	<5.00	5.22
9/5-6/06	34	0	23	6.57	<5.10
9/18/06	34	0	24	6.29	<5.00
10/2/06	34	0	24	16.8	<5.00
10/16/06	34	2-3lb/10 g	41	39.6	2.22J
10/16/06	34	5-6lb/10g	81	92.3	19.4
10/18/06	34	5-6lb/10g	27	118	<5.00
11/7/06	35	2-4lb/10g	41	52.7	4.70J
11/20/06	35	2-4lb/10g	24	57.4	<5.00
11/30/06	35	5-6lb/10g	636	<50.0	<5.00
12/4/06	35	5-6lb/10g	59	<54.3	<5.00
12/6/06	35	5-6lb/10g	37	<52.6	<5.00
12/18/06	35	2-3lb/10 g	21	24.1	<5.00
1/8/07	35	2-3lb/10 g	21	16.7	<5.00

1/22/07	35	2-3lb/10 g	79	34.6	<5.00
2/5/07	35	2-3lb/10 g	27	25.9	<5.00
2/19/07	35	2-3lb/10 g	47	19.6	<5.00
3/5/07	35	2-3lb/10 g	27	<5.00	<5.00
3/19/07	35	2-3lb/10 g	25	NA	NA
4/9/07	35	2-3lb/10 g	23	<5.00	<5.00
4/23/07	35	2-3lb/10 g	30	7.27	<5.00
5/7/07	35	2-3lb/10 g	21	2.90J	<5.00
5/21/07	35	2-3lb/10 g	20	4.36J	<5.00
6/4/07	35	2-3lb/10 g	20	<5.00	<5.00
6/18/07	35	0	21	9.62	<5.00
7/9/07	35	0	20	15.0	<5.00
7/23/07	35	0	18	8.65	<5.00
8/6/07	0	0	1	191	9.19
9/10/07	35	0	23	217	26.4
9/24/07	35	0	18	16.2	19.4
10/10/07	35	2-3lb/10 g	18	5.63	1.15J
10/22/07	35	2-4lb/10g	18	1190	53.7
11/5/07	35	2-4lb/10g	18	209	7.93
11/19/07	35	2-4lb/10g	18	19.8	24.1
12/3/07	35	2-4lb/10g	18	20.1	<5.00
12/17/07	36	2-4lb/10g	32	87.4	1.20J
1/7/08	36	2-4lb/10g	23	<5.00	<5.00
1/21/08	36	2-4lb/10g	23	58	<5.00
2/4/08	36	2-4lb/10g	24	52	<5.00
2/18/08	35	2-4lb/10g	83	57	15
3/3/08	35	5-6lb/10g	580	<5.00	<5.00
3/17/08	35	5-6lb/10g	44	11	<5.00
4/7/08	35	5-6lb/10g	78	10	<5.00
4/12/08	35	5-6lb/10g	240	6.5	NA
4/13/08	35	5-6lb/10g	100	6.8	NA
4/14/08	35	5-6lb/10g	78	8.2	NA
5/10/08	36	5-6lb/10g	68	75	<5.00
5/27/08	0	0	18	189	<5.00
6/9/08	35	2-4lb/10g	30	77	<5.00
6/23/08	35	2-4lb/10g	580	5.6	<5.00
7/7/08	35	2-4lb/10g	80	194	189
7/10/08	35	5-6lb/10g	140	254	20
7/21/08	35	5-6lb/10g	42	477	<5.00
8/4/08	35	2-4lb/10g	22	108	14
8/18/08	35	2-4lb/10g	36	31	<5.00
9/1/08	35	2-4lb/10g	25	32	<5.00
9/22/08	35	2-4lb/10g	40	22	<5.00
10/6/08	35	2-4lb/10g	21	20	<5.00
10/20/08	33	2-4lb/10g	21	13	<5.00
11/3/08	35	2-4lb/10g	24	<5.00	<5.00
11/17/08	35	2-4lb/10g	30	28	<5.00
12/1/08	35	2-4lb/10g	24	12	<5.00
12/22/08	33	2-4lb/10g	24	<5.00	<5.00
1/5/09	35	2-4lb/10g	32	7.3	<5.00
1/26/09	32	2-4lb/10g	27	<5.00	<5.00
2/9/09	33	2-4lb/10g	90	<5.00	<5.00
2/23/09	33	2-4lb/10g	31	6	<5.00
3/9/09	34	2-4lb/10g	30	5.7	<5.00
3/23/09	33	2-4lb/10g	30	<5.00	<5.00

4/6/09	32	2-4lb/10g	38	5.8	<5.00
4/20/09	32	2-4lb/10g	243	8.5	<5.00
5/4/09	33	2-4lb/10g	343	8.2	8.7
5/18/09	33	2-4lb/10g	51	6.2	<5.00
6/8/09	35	2-4lb/10g	38	<5.00	<5.00
6/29/08	33	2-4lb/10g	25	9.1	<5.00
7/20/09	32	2-4lb/10g	47	39	<5.00
8/10/09	32	2-4lb/10g	23.7	31	<5.00
9/13/09	32	0	22	8	<5.00
10/12/09	32	0	104	21	<5.00
11/9/09	32	0	45	<50	<5.00
12/7/09	32	0	28	8.2	<5.00
1/10/10	32	0	42	13	<5.00
2/15/10	32	0	87	11.1	<5.00
3/15/10	32	0	35	<5.00	<5.00
4/15/10	32	0	40	9.62	<5.00
5/17/10	32	0	180	11	<5.00
6/13/10	32	0	43	15	<5.00
7/8/10	32	0	33	66	<2
8/19/10	0-20	0	17	16.3	<5.00
9/21/10	34	0	33	28.2	<5.00
10/18/10	37	0	20	14.9	<10.00
11/20/10	37	0	21	4.89	<4.00
12/16/10		0	23.55	6.15	<5.00
1/18/11	37	0	22.83	3.39	2.86
2/9/11	37	0	26.76	10.4	<10.0
3/17/11	37	0	49.03	14.2	<5.00
4/19/11	37	0	57.55	12.5	<5.00
5/2/11			310	11	
5/3/11			271	8.92	
5/4/11			156	10.8	
5/4/11			123	15.8	
5/5/11			83	18	
5/9/11	37	0	33.91	43.8	<5.00
6/9/11	0	0	6.8	52.4	<5.00
7/18/11	0	0	0.575	18.6	<5.00
8/15/11	0	0	1.004	38.9	<5.00
9/13/11	0	0	0.132	<5.00	<5.00
10/18/11		0	23.71	52.4	<5.00
11/16/11		0	29.64	30.6	<5.00
12/19/11		0	60.25	11.5	<5.00
1/19/12	40	0	31.82	<5.00	<5.00
2/14/12	40	0	40.38	6.68	<5.00
3/29/12	40	0	50.81	7.95	<5.00
4/18/12	40	0	22.54	20	<5.00
5/23/12	40	0	18.18	10.9	<5.00
6/11/12	40	0	17.87	7.13	<5.15
7/30/12	40	0	15.1	5.68	<5.00
8/24/12	40	0	13.75	<5.00	<5.00
9/24/12	0	0	0.4	73.2	<5.00
10/15/12	0	0	4.48	26.7	<5.00
11/19/12	0	0	0.73	28.8	<5.00
12/28/12	0	0	1.22	25	<1.00
1/16/13	0	0	3.72	40.5	2.12
2/24/13	0	0	4.1	45.3	<1.00

Weir Parameters			
pH	Temp	DO %	Distance
7.46	17.57	341.9	12
7.07	16.08	216.4	15
7.85	15.4	209.1	12
7.91	12.46	247.6	12
6.41	13.08	241.1	12
6.71	14.26	256.3	12

7.63	14.02	190.7	12
6.72	14.36	214.3	12
6.52	14.66	226.8	12
6.69	18.26	238	12
7.76	19.74	249.7	12
6.92	18.33	238.2	12
7.72	18.85	196.5	12
8.03	15.9	204.7	12
7.25	11.72	236.4	12
6.65	13.99	25.92*	12 measured as mg/L not as % DO
7.13	12.36	236.7	12
6.47	13.61	259.6	12
7.1	13.4	121.6	12 Very heavy flow rate
6.36	14.88	218.7	12
7.34	15.97	219.1	12
6.68	17.49	205.1	12
7.39	17.41	202	12
7.68	20.5	214.8	12
7.75	18.93	208.7	12
7.02	13.97	199.7	12
7.22	12.2	231.1	12
6.82	14	210.1	12
7.4	12.24	257.8	12
7.57	12.17	206.4	12
7.08	13.58	13.68	12 measured as mg/L not as % DO
6.76	14.11	158.7	12
6.19	13.91	121.5	12
7.39	16.1	168.1	12
6.51	17.44	171	12

NOTES: Flow rates in gallons per minute (gpm)
O3 injection rates in pounds per 10 gallons
PCP concentrations in parts per billion (ppb)
NA - not analyzed
LE - Lab Error - samples not usable



11701 I-30 Bldg 1, Ste 115 - Little Rock, AR 72209
501-455-3233 Fax 501-455-6118

04 August 2015

Jim Fleer
McKesson Corporation - Env. Svcs Dept.
One Post St. -- 34th Floor
San Francisco, CA 94104

RE: Arkwood Monthly Sampling
Project Number: July 2015
SDG Number: 1507409

Enclosed are the results of analyses for samples received by the laboratory on 28-Jul-15 09:20. If you have any questions concerning this report, please feel free to contact me.

Sample Receipt Information:

Custody Seals	✓
Containers Correct	✓
COC/Labels Agree	✓
Received On Ice	✓
Temperature on Receipt	1.0°C

Sincerely,

A handwritten signature in blue ink, appearing to read "Norma James / Teresa Coins".

Norma James
President

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04 August 2015



Jim Fleer
McKesson Corporation - Env. Svcs Dept.
One Post St. -- 34th Floor
San Francisco, CA 94104
Project: Arkwood Monthly Sampling
Project Number: July 2015
Date Received: 28-Jul-15 09:20

CASE NARRATIVE

Sample Delivery Group – 1507409

One OR more of the qualifiers described below may appear in this report.

SAMPLE RECEIPT QUALIFIERS:

<u>Qualifier</u>	<u>Description</u>
ET	Samples received above required temperature.
ET	Samples received above required temperature. Although collected and received the same day, no ice was present to indicate the cooling preservation was attempted.
E2	Result qualified as it was received and analyzed outside of holding time. Analysis is considered a "Field" analysis.
E2	Result qualified as it was received and/or analyzed outside of holding time.
E3	Result qualified as it was received in the incorrect container and/or preservation.

QUALITY CONTROL QUALIFIERS:

<u>Qualifier</u>	<u>Description</u>
E20	Sample used as "parent" for the associated analytical batch.
%D3/S-01 / E1	Surrogate failed to recover within acceptance criteria (%D3/S-01). Results associated with this surrogate were qualified as "estimated" (E1).
B	Present in the Associated Blank
B1	Present in Blank, but Not In the Sample.
%D2 / E5	Laboratory Control Spike (LCS) and/or Laboratory Control Spike Duplicate (LCSD) failed to recover with acceptance criteria (%D2). Associated results were qualified as "estimated" (E5).
%D1	Matrix Spike (MS) and/or Matrix Spike Duplicate (MSD) failed acceptance criteria.
MBA	Failed criteria due the high concentration of analyte in the parent sample.
MBI	Failed criteria due an interference in the parent sample.
%D3	Quality Control Surrogate failed acceptance criteria.
NREC	Quality Control Surrogate failed.

04 August 2015

Jim Fleer

McKesson Corporation - Env. Svcs Dept.

One Post St. -- 34th Floor

San Francisco, CA 94104

Project: Arkwood Monthly Sampling

Project Number: July 2015

Date Received: 28-Jul-15 09:20



ANALYTICAL RESULTS

Lab Number: 1507409-01
Sample Name: Mouth
Date/Time Collected: 7/26/15 12:15
Sample Matrix: Water

<u>Semivolatiles</u>	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	<u>Date/Time Analyzed</u>	<u>Batch</u>	<u>Method</u>
Pentachlorophenol	ug/L	52.2	E2	8/3/15 15:35	A508011	8270D, Rev 4, 2007
2,4,6-Tribromophenol [surr]	%	76.5		8/3/15 15:35	A508011	8270D, Rev 4, 2007
2-Fluorophenol [surr]	%	40.6		8/3/15 15:35	A508011	8270D, Rev 4, 2007
Phenol-d5 [surr]	%	28.4		8/3/15 15:35	A508011	8270D, Rev 4, 2007

ANALYTICAL RESULTS

Lab Number: 1507409-02
Sample Name: Weir
Date/Time Collected: 7/26/15 11:50
Sample Matrix: Water

<u>Semivolatiles</u>	<u>Units</u>	<u>Result</u>	<u>Qualifier(s)</u>	<u>Date/Time Analyzed</u>	<u>Batch</u>	<u>Method</u>
Pentachlorophenol	ug/L	< 1.00	E1, E2	8/3/15 15:56	A508011	8270D, Rev 4, 2007
2,4,6-Tribromophenol [surr]	%	46.3		8/3/15 15:56	A508011	8270D, Rev 4, 2007
2-Fluorophenol [surr]	%	15.8	%D3	8/3/15 15:56	A508011	8270D, Rev 4, 2007
Phenol-d5 [surr]	%	13.3		8/3/15 15:56	A508011	8270D, Rev 4, 2007

04 August 2015



Jim Fleer
McKesson Corporation - Env. Svcs Dept.
One Post St. -- 34th Floor
San Francisco, CA 94104
Project: Arkwood Monthly Sampling
Project Number: July 2015
Date Received: 28-Jul-15 09:20

QUALITY CONTROL RESULTS

Semivolatiles - Quality Control Analyzed: 03-Aug-15 14:10 By: KR

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch A508011 - EPA 3510C MS

Blank (A508011-BLK1)

Prepared & Analyzed: 03-Aug-15

Pentachlorophenol	ND	1.00	ug/L							
Surrogate: 2,4,6-Tribromophenol	26.6		"	40.0		66.6	43.7-141			
Surrogate: 2-Fluorophenol	14.6		"	40.0		36.5	17.8-88.9			
Surrogate: Phenol-d5	10.4		"	40.0		25.9	12.2-69.5			

LCS (A508011-BS1)

Prepared & Analyzed: 03-Aug-15

Pentachlorophenol	39.3	1.00	ug/L	40.0		98.3	54-123			
Surrogate: 2,4,6-Tribromophenol	36.7		"	40.0		91.8	60.6-130			
Surrogate: 2-Fluorophenol	17.7		"	40.0		44.3	38.3-82			
Surrogate: Phenol-d5	12.9		"	40.0		32.2	29-58			

Matrix Spike (A508011-MS1)

Source: 1507409-01

Prepared & Analyzed: 03-Aug-15

Pentachlorophenol	103	2.00	ug/L	80.0	52.2	63.7	40.6-138			
Surrogate: 2,4,6-Tribromophenol	54.2		"	80.0		67.7	43.7-141			
Surrogate: 2-Fluorophenol	27.4		"	80.0		34.3	17.8-88.9			
Surrogate: Phenol-d5	20.2		"	80.0		25.2	14.7-66.9			

Matrix Spike Dup (A508011-MSD1)

Source: 1507409-01

Prepared & Analyzed: 03-Aug-15

Pentachlorophenol	105	2.00	ug/L	80.0	52.2	66.3	40.6-138	1.97	8.94	
Surrogate: 2,4,6-Tribromophenol	55.3		"	80.0		69.1	43.7-141			
Surrogate: 2-Fluorophenol	27.5		"	80.0		34.4	17.8-88.9			
Surrogate: Phenol-d5	20.1		"	80.0		25.1	14.7-66.9			

QUALIFIER(S)

*%D3: Surrogate Percent Recovery Does Not Meet Laboratory Acceptance Criteria
*E1: Estimated Result Due to Surrogate Failure
*E2: Estimated Result; Analyzed Outside of Holding Time

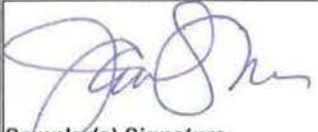



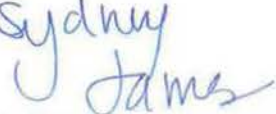
All Analysis performed according to EPA approved methodology when available:
SW 846, Revised December, 1996; EPA 600/4-79-020, Revised March, 1983; Standard Methods.
Instrument calibration and quality control samples performed at or above frequency specified in analytical method.

Reviewed by: Norma James / Teresa Coins
Norma James and/or Teresa Coins
Technical Director and/or QA Officer



11701 Interstate 30, Bldg. 1, Ste. 115
 Little Rock, AR 72209
 PHONE: 501-455-3233
 FAX: 501-455-6118

CHAIN OF CUSTODY RECORD

CLIENT INFORMATION			Project Description			Turnaround Time		Preservation Codes:											
McKesson Corporation			Arkwood Monthly Sampling			1 Day (100%)		1. Cool, 4 Degrees Centigrade					4. Thiosulfate for Dechlorination						
14348 Nieman Rd.						2 Day (50%)		2. Sulfuric Acid (H ₂ SO ₄), pH < 2					5. Hydrochloric Acid(HCl)						
Overland Park KS 66221			Reporting Information			3 Day (25%)		3. Nitric Acid (HNO ₃), pH < 2					6. Sodium Hydroxide (NaOH), pH > 12						
			Telephone: 913-706-3422			5 Day (Routine)		TEST PARAMETERS										Bottle Type Code	
Attn: Jim Fleer			Email: james.fleer@mckesson.com			Preservative Code: 1												G = Glass; P = Plastic	
						Bottle Type: GA												V = Septum; A = Amber	
 Sampler(s) Signature			James Fleer Sampler(s) Printed															Arkansas Analytical Work Order Number: 1507409-	
Field Number	SAMPLE COLLECTION		Grab	Comp	Number of Bottles	Sample Matrix	SAMPLE IDENTIFICATION/ DESCRIPTION	Pentachlorophenol (8270D)											
	Date/s	Time/s																	
	7/26/15	12:15	X		2	Water	Mouth	X											
	7/26/15	11:50	X		2	Water	Weir	X											
								ONSITE MEASUREMENTS BY Oxford Environmental											
										pH		Temperature		DO%					
								Mouth		6.13		14.20		53.2					
								Weir		6.51		17.44		171.0					
1. Relinquished by: (Signature)			Date/Time		2. Received by: (Signature)			SAMPLE CONDITION UPON RECEIPT IN LAB					REMARKS / SAMPLE COMMENTS						
			7/27/15 12:30					1. CUSTODY SEALS: <input checked="" type="checkbox"/> Yes ___ No 2. CONTAINERS CORRECT: <input checked="" type="checkbox"/> Yes ___ No 3. COC/LABELS AGREE: <input checked="" type="checkbox"/> Yes ___ No					Flow Rate - 5.25 O ₃ Power - 45 O ₃ Conc - 2.52 O ₃ Residual - 1.66						
3. Relinquished by: (Signature)			Date/Time		4. Received by lab: (Signature)			4. RECEIVED ON ICE: <input checked="" type="checkbox"/> Yes ___ No 5. TEMPERATURE ON RECEIPT: 1°C 6. TEMPERATURE GUN ID: HHT #2											
			7-28-15 0920																
													FOR COMPLETION BY LAB ONLY						